

Q 1

The SI Unit for resistance is?

A

Ohm

B

Ampere

C

Watt

D

Volts

Q 2

If a person is irradiated accidentally by high radiation what immediate effects would be seen?

A

skin burning

B

high blood pressure

C

fever

D

any of these

Q 3

The acceleration is a:....

A

vector quantity

B

scalar quantity

C

dimensionless quantity

D

none of these

Q 4

Coulomb per second is equivalent to

A

Ampere

B

Farad

C

Henry

D

Watt

Q 5

Two waves interfere constructively, if the path difference between them is

A

$$(2n + 1) \lambda$$

B

$$(2n + 1) \lambda/2$$

C

$$(2n + 1) \lambda/3$$

D

None of these

Q 6

The property of bending of light around obstacles and spreading of light waves into the geometrical shadow of an obstacle is called:

A

diffraction

B

reflection

C

interference

D

refraction

Q 7

The fission reaction is slow reaction

A

TRUE

B

FALSE

C

true when neutrons slows down

D

any of these

Q 8

The penetrating power of x rays depends on

A

frequency

B

amplitude

C

wavelength

D

all of these

Q 9

The efficiency of the heat engine can be defined as:...

A

$$Q_2 - Q_1$$

B

$$Q_2 + Q_1$$

C

$$Q_1 - Q_2$$

D

$$Q_1 + Q_2$$

Q 10

If number of loops are increased than according to Faraday law ____ will increase

A

voltage

B

electric field

C

magnetic field

D

all of these

Q 11

Electric motor converts _____ to _____ energy

A

electric , mechanical

B

mechanical , electric

C

mechanical , potential

D

not enough information

Q 12

Time varying magnetic field creates electric field, this is called

A

electric induction

B

magnetic induction

C

electromagnetic induction

D

dipole induction

Q 13

Which reaction is endothermic

A

fission

B

fusion

C

formation of gas

D

none of these

Q 14

Under a cyclic path, internal energy after complete cycle is same as

A

2(initial)

B

initial heat

C

initial internal energy

D

initial work

Q 15

Blackbody shows a _____ spectra

A

continuous

B

discrete

C

both a) and b)

D

None of these

Q 16

Determine the angular displacement in radians of 6.5 revolutions.

A

40.8 radians

B

4 radians

C

3 radians

D

36 radians

Q 17

Faraday law states that the rate of change of magnetic flux is equal to

A

electromotive force

B

induced current

C

induced flux

D

induced magnetic field

Q 18

The dimensions of angular velocity are

A

$[LT^{-1}]$

B

$[LT]$

C

$[LT^{-2}]$

D

$[T^{-1}]$

Q 19

If an object moves with constant speed then its acceleration always is

A

zero

B

nonzero

C

infinite

D

none of these

Q 20

Two containers X and Y are filled with an ideal gas. X has 1 mol of gas and Y has 2 mol of gas. Volume of Y is four times that of X. Pressure in Y is half that in X. What is temperature of gas in Y -----
----- temperature of gas in X

A

2

B

1

C

1 --- 2

D

1 ---- 4

Q 21

A refrigerator operates for a certain time, and the work done by the electrical energy during this time is $W=1000\text{J}$. What can be said about the heat delivered to the room containing the refrigerator?

A

The heat delivered to the room is less than 1000 J

B

The heat delivered to the room is equal to 1000 J

C

The heat delivered to the room is greater than 1000 J

D

No heat is delivered to the room

Q 21

A refrigerator operates for a certain time, and the work done by the electrical energy during this time is $W=1000\text{J}$. What can be said about the heat delivered to the room containing the refrigerator?

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The heat delivered to the room is equal to 1000 J

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D

No heat is delivered to the room

Q 22

A potentiometer is used to measure the emf of a cell. At null point, no current flows through_____

A

the main circuit

B

the cell circuit

C

both the main and cell circuits

D

the potentiometer wire

Q 23

Average dc Voltage across the load in terms of V_{max} is

A

$0.532 V_{max}$

B

$0.637 V_{max}$

C

$0.759 V_{max}$

D

$0.437 V_{max}$

Q 24

x-rays images are detected on ____ screen

A

Phosphorous

B

carbon

C

sodium

D

helium

Q 25

When a standing wave is set up in a pipe which is open from one end, which of the following statements is true?

A

sum of the number of antinodes and the number of nodes is always even

B

wavelength = length string / number of nodes

C

The shape of the string at any instant shows a symmetry about the midpoint of the string

D

frequency = number of nodes * fundamental frequency

Q 26

x-rays used to measure

A

fractures

B

temperature

C

blood pressure

D

all of these

Q 27

Most widely used rectifier is

A

half wave rectifier

B

full wave rectifier

C

bridge rectifier

D

none of them

Q 28

If a porter is carrying a load and waiting for arrival of train then work done by the porter is

A

positive

B

zero

C

negative

D

none of these

Q 29

Acceleration of a moving train when it start its motion is

A

negative

B

zero

C

positive

D

infinite

Q 30

Materials that have both metallic and non-metallic characteristics are called

A

Semiconductor

B

Metal

C

Non metal

D

Organic compound

Q 31

In Michelson's interferometer, displacement L of mirror and wavelength λ of light are related as:

A

$$L = 2\lambda$$

B

$$L = m / \lambda$$

C

$$L = m \lambda$$

D

$$L = m \lambda / 2$$

Q 32

If a car moves with a uniform speed of 2ms^{-1} in a circle of radius 0.4, its angular speed is?

A

4 rads^{-1}

B

5 rads^{-1}

C

1.6 rads^{-1}

D

2.8 rads^{-1}

Q 33

Magnetic Force between two wires is inversely proportional to

A

distance

B

current on them

C

Charge on them

D

none of these

Q 34

1 tesla is equal to

A

100 N/Am

B

1 N/Am

C

0.1 Nm/A

D

1 Nm/A

Q 35

The temperature coefficient of resistance is expressed in :

A

$^{\circ}\text{C}$

B

$^{\circ}\text{C}^{-1}$

C

$\text{m}^{\circ}\text{C}^{-1}$

D

None of these

Q 36

A point source broadcasts sound into a uniform medium. If the distance from the source is tripled how does the intensity change?

A

It becomes one-ninth as large

B

It becomes one-third as large

C

It becomes three times larger

D

It becomes nine times larger

Q 37

A sample of radioactive element has a mass of 10 gm at an instant $t = 0$. The approximate mass of this element in the sample after two mean lives is

A

3.70 gm

B

6.30 gm

C

2.50 gm

D

1.35 gm

Q 38

What is the change in kinetic energy of a proton when it is accelerated through a potential difference of 2MV?

A

0.32 μ J

B

0.32 nJ

C

0.32 pJ

D

0.32 fJ

Q 39

Consider a peak rectifier fed by a 60-Hz sinusoid having a peak value $V_p = 100$ V. Let the load resistance $R = 10$ k Ω . Calculate the fraction of the cycle during which the diode is conducting

A

1.06 %

B

2.06%

C

3.18 %

D

4.82%

Q 40

Resistance of carbon filament lamp _____ as the applied voltage increases.

A

Increases

B

Decreases

C

Remains same

D

None of the above

Q 41

Magnetic field lines have a property that lines are _____

A

non intersecting

B

intersect near south pole

C

intersect near north pole

D

intersect every where

Q 42

Circular motion of a particle while attached to a string centripetal acceleration is provided by

A

Tension in string

B

gravitational force

C

Normal force

D

none of these

Q 43

What is the power of a bulb if it is operated at 220V and the current in the circuit is 1.5 Amp

A

330 watt

B

430 watt

C

530 watt

D

500 watt

Q 44

Value of current in a short circuit is _____

A

Infinite

B

zero

C

minimum

D

maximum

Q 45

A monatomic gas at pressure P and Volume V expands isothermally to volume $2V$ and then adiabatically to volume $16V$. The final pressure is

A

$16P$

B

$64P$

C

$32P$

D

$P/64$

Q 46

Electric field generated due to induction is

A

conservative

B

nonconservative

C

depends on internal property

D

not enough information

Q 47

The ratio of angular speed of the minute hand of clock to that of its hour hand is :

A

3600:1

B

60:1

C

24:1

D

12:1

Q 48

The number of neutrons emerged out in a single nucleus during fission reaction are

A

infinite

B

zero

C

3

D

none of these

Q 49

Time constant is defined as the time required by the capacitor:...

A

to deposit 63% of the equilibrium charge

B

to deposit 36% of the equilibrium charge

C

to deposit 63 times of the equilibrium charge

D

to deposit 36 times of the equilibrium charge

Q 50

A stationary wave is setup on a string which is fixed at both ends. The frequency of the wave is 400 Hz. If the speed of wave is 480 m/s, then what is the length of the string?

A

1.2 m

B

0.84 m

C

0.60 m

D

0.42 m

Q 51

P-V diagram of a diatomic gas is a straight line passing through origin. What is the molar heat capacity of the gas in the process?

A

R

B

$1.5R$

C

$3R$

D

$4R/3$

Q 52

A block of mass 10 kg is moving in x-direction with a constant speed of 10 m/s. it is subjected to a retarding force $F = -0.1x \text{ J/m}$ during its travel from $x = 20 \text{ m}$ to $x = 30 \text{ m}$. its final kinetic energy will be:

A

475J

B

450J

C

275J

D

250J

Q 53

A material is made with two different shapes, which surface will absorb more heat in less time

A

rectangular shape of larger area

B

circular shape of smaller area

C

both will absorb same heat

D

heat absorption is independent of shape of material

Q 54

The half life of U-238 against alpha decay is 4.5×10^9 years. Find the activity of 1 kg of U-238?

A

2.4×10^{-4} Ci

B

3.34×10^{-4} Ci

C

4.34×10^{-4} Ci

D

2.4×10^{-5} Ci

Q 55

In annihilation process..... are produced :

A

Positron

B

Photons

C

Electrons

D

B & C are correct

Q 56

Half wave voltage multiplier can provide any degree of voltage multiplication by cascading diodes and capacitors.

A

any doubler

B

any tripler

C

any multiplication

D

none of them

Q 57

Rate of reaction can be calculated by calculating

A

Change in temperature

B

Change in pressure

C

Change in volume

D

Change in concentration

Q 58

After digestion proteins change into:

A

Amino acids

B

Starch

C

Glycogen

D

Lipids

Q 59

The mass of one mole of electron is

A

1.8mg

B

0.184mg

C

0.55 mg

D

0.64 mg

Q 60

Organic compounds are_____?

A

Inorganic

B

Polar

C

Ionic

D

Non-Polar

Q 61

The Oxidation state of Alkali metals is?

A

1

B

2

C

3

D

0

Q 62

In which phase $\text{S}_{\text{N}}2$ reactions are favored?

A

Solid

B

Liquid

C

Gas

D

All of these

Q 63

Each half reaction in ion electron method is balanced by adding

A

Electrons on left hand side

B

Electron on right hand side

C

Both left or right hand side

D

None of these

Q 64

How many resonance structures of benzene are possible?

A

2

B

3

C

6

D

4

Q 65

The unit_ is commonly used by meteorologist

A

Bar

B

centibar

C

millibar

D

kilobar

Q 66

Atoms in solids are

A

Loosely Packed

B

In random motion

C

Excited

D

Closely packed

Q 67

Pure metal

A

Corrode slowly

B

Does not corrode easily

C

Corrode rapidly

D

None of these

Q 68

During catalytic reduction of carbonyl compounds, hydrogen adds across?

A

$C=C$

B

$C-H$

C

$C=O$

D

All of these

Q 69

The presence of several fine lines in line spectrum shows the presence of

A

shells

B

energy levels

C

sub shells

D

all of these

Q 70

The reaction in which a molecule is removed from a compound but no addition takes place is called as_____?

A

Substitution reaction

B

Elimination reaction

C

Addition reaction

D

Replacement reaction

Q 71

Δn is the difference in number of moles of reactants and products in a reaction which is

A

Solid Phase

B

Liquid phase

C

Gaseous Phase

D

Plasma Phase

Q 72

Ortho directing groups _____ on benzene ring?

A

Increases electron density

B

Decrease electron density on benzene

C

Make benzene less reactive

D

None of these

Q 73

In a cubic close packed system, the number of octahedral void per atom is/are

A

1

B

3

C

8

D

5

Q 74

Heat of solution for NaCl is

A

High

B

low

C

Zero

D

One

Q 75

The amount of heat required to form vapors of one mole of a liquid at its boiling point is called as?

A

Molar heat of fusion

B

Molar heat of vapourization

C

Molar heat of sublimation

D

Molar heat of Evaporation

Q 76

Non polar covalent bond is formed b/w

A

homonuclear diatomic molecules

B

heteronuclear diatomic molecules

C

similar atoms

D

dissimilar atoms

Q 77

BeO is___ in nature

A

Acidic

B

Basic

C

Amphoteric

D

Neutral

Q 78

Alcohol is dehydrated by the following reaction

A

elimination reaction

B

oxidation reaction

C

combustion

D

decomposition

A

Positive

B

zero

C

Negative

D

All of these

77

SKIPPED QUESTIONS 

 Previous Question

Next Question 

Q 79

Oxidation Number can be

A

Positive

B

zero

C

Negative

D

All of these

Q 80

Calculations regarding ionic character tells us that there is no bond when ionic character is

A

72%

B

1 %

C

92%

D

9 %

Q 81

Which one of the following is called as marsh gas?

A

Methane

B

Ethane

C

Propane

D

Butane

Q 82

Molecular Solids are held together by weak intermolecular forces called

A

Van der Waal forces

B

Dipole Dipole Interaction

C

Both A and B

D

Electrostatic Forces

Q 83

Rate of reaction has

A

No units

B

unit of Moles/dm³

C

Unit as Moles / litre

D

Unit as Moles/dm³s⁻¹

Q 84

Which of the following catalyst is used in Friedel craft reaction?

A

ZnCl_2

B

KMnO_4

C

AlCl_3

D

V_2O_5

Q 85

In case of $\text{HOCH}_2\text{CH}_2\text{CH}_2\text{COOH}$, from where numbering is started ?

A

OH group is given number 1

B

Carboxylic acid is given Number 1 position

C

COOH is given number 3 position

D

COOH is given number 4 position

Q 86

For Boyle's law verification, If a graph is plotted between $1/V$ on x-axis and P on y-axis, _____ graph will be obtained

A

curved

B

straight line

C

zigzag

D

none of these

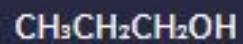
Q 87

When $\text{CH}_3\text{CH}_2\text{MgBr}$ reacts with CO_2 which of the following product is formed?

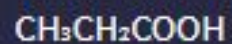
A



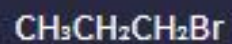
B



C



D



Q 88

Which of the following oxide is formed by alkali metals?

A

Basic oxides

B

Acidic Oxides

C

Amphoteric oxides

D

Both b and c

Q 89

In non-polar molecules ,the strength of London forces depends on number of

A

moles

B

molecules

C

atoms

D

all of these

Q 90

Which of the following process is used to improve the quality of Gasoline?

A

Steam cracking

B

Reforming

C

Catalytic cracking

D

Distillation

Q 91

When an electrophilic reagent attack on alcohol

A

O - H bond formed

B

O - H bond breaks

C

C - O bond breaks

D

rise in boiling point

Q 92

Carboxylic acids turn ?

A

Red litmus blue

B

Blue litmus red

C

Neutral to litmus

D

No effect

Q 93

How phenol is produced from the Chlorobenzene ?

A

Using Kolb's method

B

Using Dow's method

C

Using Zn dust

D

All of these

Q 94

How many classes of enzymes are there according to International union of Biochemistry ?

A

Four

B

Six

C

Five

D

Two

Q 95

If number of molecules of different gases are same at S.T.P ,the occupied volume will be

A

greater

B

same

C

smaller

D

twice

Q 96

Sulphur-16 gets its stabilization by gaining 2 electron to become equal to

A

neon

B

argon

C

helium

D

krypton

Q 97

Coal tar contains many organic compounds that can be separated by_____?

A

Destructive distillation

B

Fractional distillation

C

Vacuum distillation

D

Partial distillation

Q 98

In pig iron the concentration of C-atom is

A

.12 — .25%

B

2.5 — 4.5%

C

2. — 4. %

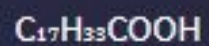
D

.25 — 2.5%

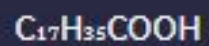
Q 99

Which one of the following is the formula of stearic acid?

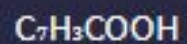
A



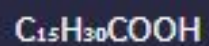
B



C



D



Q 100

Why aldehydes are more reactive than ketones?

A

Electronic reasons

B

Steric hindrance

C

Both a and b

D

None of these

Q 101

The strength of intermolecular forces in liquids, solids and gases depends directly on

A

speed of atoms

B

motion of particles

C

distance b/w molecules

D

all of these

Q 102

ΔH and ΔE have same values for the reaction in _____?

A

Solid phase

B

Gases phase

C

Liquids, solids and solution

D

None of these

Q 103

Percentage of free space in a body centered cubic unit cell is

A

.32

B

.34

C

.28

D

.3

Q 104

Which of the following is not a mixture of hydrocarbons

A

candle wax

B

kerosine oil

C

paraffin oil

D

vegetable ghee

Q 105

According to _____ theory, atoms were the ultimate particles that cannot be divided further.

A

Bohr's

B

Rutherford's

C

Dalton's

D

cannizzaro's

Q 106

The total number of bond angles in methane are

A

2

B

3

C

5

D

4

Q 107

In case of oxidation of symmetrical ketone, which of the following products are formed ?

A

One Carboxylic acid

B

Mixture of different carboxylic acids

C

Same type of carboxylic acids

D

None of these

Q 108

Flavour of Orange is due to the presence of _____ ester?

A

Benzyl acetate

B

Octyl Acetate

C

Amyl Butyrate

D

Ethyl butyrate

Q 109

Tertiary alcohols can change into alkenes by

A

combustion reaction

B

oxidation

C

elimination reaction

D

addition reaction

Q 110

Grignard reagent is produced by the reaction of Alkyl halides with _____?

A

Ca in anhydrous ether

B

Mg in dry ether

C

Mg in hydrous ether

D

Ca in dry ether

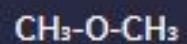
Q 111

Which of the following shows H-bonding?

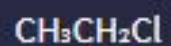
A



B



C



D

All of these

Q 112

The critical volume of O_2 is ____ cm^3/mol

A

95.56 g/dm^3

B

64.51 g/dm^3

C

74.42 g/dm^3

D

99.9 g/dm^3

Q 113

Reactions in which simple substances are combined to form complex substances are called?

A

Metabolic reactions

B

Catabolic reactions

C

Anabolic reactions

D

none of these

Q 114

How many laminae present in the spinal cord's grey matter?

A

10

B

8

C

12

D

9

Q 115

The end or complete stop of the menstrual cycle is called:

A

Ovulation

B

menstruation

C

Fertilization

D

menopause

Q 116

Mating between relatives is called which of the following?

A

ex breeding

B

breeding

C

inbreeding

D

outbreeding

Q 117

In uncompetitive inhibition, the inhibitor binds with

A

enzyme

B

substrate

C

ES-complex

D

all of these

Q 118

The non substrate molecules that binds to the allosteric sites are called?

A

inhibitors

B

reactants

C

allosteric substrates

D

allosteric modulators

Q 119

The Light reaction takes place in?

A

Chloroplast

B

Grana

C

Thylakoid

D

Stroma

Q 120

The function of lymph node is to filter ----

A

Blood

B

Lymph

C

Semen

D

Amniotic fluid

Q 121

The dense fluid filled region in the chloroplast is?

A

Grana

B

stroma

C

Thylakoid

D

Intergrana

Q 122

Cellulose is the major component of?

A

primary wall

B

secondary wall

C

middle lamella

D

all of these

Q 123

What is a Provirus?

A

a. free virus

B

free DNA

C

primitive virus

D

integrated viral genome

Q 124

Reflex action is the simplest form of response in:

A

higher animals

B

smaller animals

C

simpler animals

D

Lowest animals

Q 125

The uterus of the female reproductive system opens into the?

A

placenta

B

birth canal

C

cervix

D

all of these

Q 126

Which of the following structure primarily helps in attachment of bacteria on various surfaces?

A

pili

B

flagella

C

both a and b

D

none of these

Q 127

Euplectella belongs to phylum _____.

A

Porifera

B

Ctenophora

C

Echinodermata

D

None of the above.

Q 128

Which of these cells is not present in phloem?

A

companion cell

B

sieve tube members

C

vessels

D

parenchyma

Q 129

In seminiferous tubules repeated division of the germinal epithelium produce?

A

oogonia

B

spermatogonia

C

ovogonia

D

oogonia

Q 130

Some bacteria have heat resistant organelles called as

A

spores

B

cysts

C

granules

D

all of Above

Q 131

Joints are classified on the basis of:

A

the amount of movement allowed by them

B

nature of structure they have

C

type of bones they join

D

Both B and C

Q 132

The total kinetic energy of water molecules is known as:

A

Water potential

B

Osmotic potential

C

Pressure potential

D

None of these

Q 133

Assume that a trait is expressed according to the mechanism of complete dominance. Each gene contributes one of two possible alleles. Which of the following statements is true?

A

The genotype is the expressed trait of the individual

B

There are three possible phenotypes the organism can express

C

If two heterozygous organisms mate, 25% of the progeny will be homozygous

D

If two heterozygous organisms mate, 75% of the progeny will display the dominant phenotype

Q 134

An egg is fertilized in laboratory and implanted in uterus for development. This is called:

A

test tube baby

B

Cloning

C

In vivo fertilization

D

Both A and B

Q 135

The idea of inheritance of acquired characteristics was given by

A

Lamark

B

Darwin

C

Aristotle

D

Lyell

Q 136

Which statement is incorrect about Lock and Key Model?

A

Specific enzyme can transform only a specific substrate

B

Active site of an enzyme is a non flexible structure

C

Active site does not change before during or even after the reaction

D

It explains the mechanism of every chemical reaction

Q 137

Which of the following is heterozygote?

A

RR

B

rr

C

Both a & b

D

None of them

Q 138

Which group of animals is not a deuterostome?

A

Echinodermata

B

Arthropoda

C

Mollusca

D

Both B and C

Q 139

How many ml of oxygen are present in a litre of water?

A

10

B

20

C

40

D

200

Q 140

Which one of the following does not occur at puberty in girls?

A

voice deepens

B

pubic hair grow

C

hips broaden

D

menstrual cycle starts

Q 141

_____ is formed by two pairs of light chains, and one pair of heavy chains.

A

actin

B

myosin

C

myofibril

D

Fibroin

Q 142

The specificity of an enzyme is due to which of the following?

A

protein nature

B

active site

C

globular shape

D

cofactor

Q 143

In the air passageway, the incoming air passes from the pharynx to

A

bronchi

B

bronchioles

C

Windpipe

D

larynx

Q 144

Nematoda is a taxon of the ranking:

A

Kingdom

B

Sub-kingdom

C

Phylum

D

Class

Q 145

The function of tropomyosin is to prevent actin and myosin from --- when the muscle is at rest.

A

interacting

B

separation

C

Both A and B

D

None of these

Q 146

Enzymes which control cellular respiration are present in?

A

mitochondria

B

nucleus

C

ribosomes

D

chloroplast

Q 147

Which of the following use book lungs to breathe?

A

earthworm

B

scorpions

C

fish

D

all of these

Q 148

Cell turgidity is caused by:

A

Endosmosis

B

Exosmosis

C

Plasmolysis

D

Active transport

Q 149

Lysosomes are known as “suicidal bags” because of?

A

parasitic activity

B

presence of food vacuoles

C

hydrolytic activity

D

catalytic activity

Q 150

The trioses which are intermediate in respiration and photosynthesis are?

A

Glyceraldehydes

B

Dihydroxyacetone

C

both a and b

D

none of these

Q 151

Sperms are produced in:

A

Urethra

B

Pancreas

C

sperm duct

D

testis

Q 152

The breaking of terminal phosphate of ATP yields?

A

7 Kcal

B

8 Kcal

C

7,5 Kcal

D

7.3 Kcal

Q 153

The stage of photosynthesis that actually produces sugar is ____

A

the calvin cycle

B

photosystem I

C

photosystem II

D

the light reaction

Q 154

The medulla oblongata is found on which of the following regions?

A

top of brain

B

behind the thalamus

C

behind the hypothalamus

D

top of spinal cord

Q 155

A 25 years old female with chronic fatigue was diagnosed with iron deficiency anemia and low blood count what is the cause of her fatigue?

A

reduction in amount of Fe-S centers

B

lowered production of water from the electron transport chain that cause dehydration

C

iron is important for electron transport chain

D

iron is important for NADH production

Q 156

Which of the following is not vestigial organ of man?

A

appendix

B

coccyx

C

both a and b

D

none of these

Q 157

Out of 31 pairs of spinal nerves, how many pairs of sacral nerves are there?

A

5

B

10

C

12

D

15

Q 158

In an aqueous environment the most stable tertiary conformation is that in which type of amino acids are buried inside the conformation?

A

hydrophilic

B

hydrophobic

C

basic

D

acidic

Q 159

Which of the following is true of both bacterial conjugation and meiosis?

A

Both processes produce four haploid cells

B

Both processes are a form of asexual reproduction

C

Both processes involve genetic recombination

D

none of these

Q 160

Which of the following would not help determine whether a cell was eukaryotic or prokaryotic?

A

DS DNA

B

SS DNA

C

RED

D

membrane bound organelles

Q 161

The sponges in which sperms develop first are included in the category of?

A

Peritandrous

B

Protandrous

C

Protandrous

D

Protandrous

Q 162

Binomial nomenclature was introduced by

A

Artistotle

B

Linnaeus

C

Mendel

D

Darwin

Q 163

Embryo of a turtle, mouse and human show

A

comparative embryology

B

distinct differences

C

vestigial organs

D

analogous structure

Q 164

Some auditory reflexes and posture are controlled by which region of the brain?

A

forebrain

B

spinal cord

C

hindbrain

D

midbrain

Q 165

What is the name of the region where double-stranded single circular DNA is found in the prokaryotic cell?

A

Proton Nucleus

B

Nucleus

C

Nucleoplasm

D

Nucleoid

Q 166

All of the following statements are true regarding the attachment or adsorption of the virion to the host cell EXCEPT that:

A

for naked virions, the surface capsid proteins are responsible for binding to a specific cell receptor.

B

for enveloped viruses, the spikes are responsible for binding to a specific cell receptor.

C

cell lacking a receptor for a specific virus is not infected by that virus.

D

All of the above

Q 167

Which of the following statement about the head of a chlorophyll molecule is incorrect?

A

It is a porphyrin ring or tetrapyrrole ring structure

B

It is flat, square and light absorbing

C

Composed of carbon and nitrogen atoms with Magnesium as central metal ion, which is coordinated with nitrogen.

D

It is hydrophobic

Q 168

What would you predict would happen to pancreatic enzymes if they were introduced to the stomach?

A

Their function would decrease due to increased pH

B

Their function would decrease due to decreased pH

C

Their function would increase due to decreased proton concentration

D

Their function would increase due to decreased pH

Q 169

The optimum pH for the functioning of the enzyme pepsin is?

A

2

B

3

C

4

D

5

Q 170

One similarity between annelids and arthropods:

A

Closed circulatory system.

B

Nitrogenous waste product is uric acid.

C

Ventral nerve cord.

D

None of the above.

Q 171

If one of an organism's gametes contains 16 chromosomes, how many chromosomes will one of its somatic cells contain?

A

8

B

18

C

16

D

32

Q 172

Which of these does not contain cartilage?

A

Bronchioles

B

Larynx

C

Trachea

D

Bronchi

Q 173

Where does germ cells are produced?

A

uterus

B

ovaries

C

eggs

D

fallopian tube

Q 174

The cell membrane of a skeletal muscle cell is called:

A

Sarcoplasm

B

sarcolemma

C

sarcomere

D

myofibrils

Q 175

Which one is not the characteristic of Kingdom Animalia?

A

All animals are ingestive heterotrophs

B

All animals are eukaryotes

C

It is the largest kingdom.

D

All animals develop from the dissimilar gametes i.e. large sperm and the small egg

Q 176

Which of the following cell structure contains the highest concentration of RNA?

A

centriole

B

nucleus

C

nucleolus

D

mitochondria

Q 177

The brain part that carries sensory information to the limbic system and cerebrum is

A

Medulla

B

Thalamus

C

hypothalamus

D

Corpus callosum

Q 178

Which of the modes of cellular transport requires energy?

A

active transport

B

osmosis

C

passive transport

D

diffusion

Q 179

The ventral root of the spinal cord contains axons of

A

Sensory neuron

B

Motor neuron

C

Mixed neuron

D

Spinal neuron

Q 180

The nodules of lymphoid tissue found in the wall of the intestinal tract are termed as:

A

Grave's region

B

Hashimoto's nodes

C

Peyer's patches

D

DiGeorge's nodes

Q 181

Choose the correct sentence.

A

Belgium and france fought over who would host the olympic games?

B

Belgium and France fought over who would host the Olympic Games.

C

Belgium and France: fought over who would host the Olympic Games!

D

Belgium and France fought over who would host the olympic games.

Q 182

Choose the correct spelling of the word

A

arround

B

arond

C

arund

D

around

Q 183

Thank you. You've been very _____ through this time.

A

ideal

B

cruel

C

kind

D

glad

Q 184

We _____ to school every day

A

goes

B

go

C

went

D

gone

Q 185

unburdened

A

hindered

B

extort

C

free

D

encumbered

Q 186

There was _____ article about pollution in _____ paper.

A

a..an

B

an... the

C

a... the

D

a...a

Q 187

The excuse he gave was extremely _____.

A

delicate

B

flimsy

C

slight

D

thin

Demonstrate correct use of subject-verb agreement

Q 188

Neither the professor nor his assistants _____ able to solve the mystery of the eerie glow in the laboratory.

A

is

B

was

C

were

D

be

Demonstrate correct use of subject-verb agreement

Q 189

The truthful ____ always trustworthy.

A

is

B

was

C

are

D

may

and punctuation to clarify meaning

Q 190

Choose the correct sentence.

A

Qamar is going to college in September, he plans to study Sociology.

B

Qamar is going to college in september, he plans to study sociology.

C

Qamar is going to college in September he plans to study Sociology.

D

Qamar is going to college in september he plans to study Sociology?

Demonstrate control of tenses and sentence structure

Q 191

What is the tense of this question? What are the shops like around here?

A

Present

B

past

C

future

D

none of these

Demonstrate control of tenses and sentence structure

Q 192

Which tense would you use for talking about your childhood?

A

Present

B

past

C

future

D

none of these

Demonstrate correct use of articles and prepositions Demonstrate correct use of subject-verb agreement Demonstrate correct use of writing conventions of spelling, capitalization and punctuation to clarify meaning

Q 193

Now the time was (A)/ to escape (B)/ and he opened the window (C)/ and jumped out. (D)

A

Now the time was

B

to escape

C

and he opened the window

D

and jumped out

Demonstrate correct use of articles and prepositions Demonstrate correct use of subject-verb agreement Demonstrate correct use of writing conventions of spelling, capitalization and punctuation to clarify meaning

Q 194

_____ people know the town better than old Jake here.

A

Only few

B

The few

C

Only the few

D

Few

Demonstrate control of tenses and sentence structure

Q 195

Fetch me a glass of water.

A

Declarative

B

Imperative

C

Interrogative

D

Exclamatory

Comprehend key vocabulary

Q 196

waft

A

wave

B

drift

C

stump

D

keep

Demonstrate control of tenses and sentence structure

Q 197

Identify the tense used in the given sentence. "You are always working on your laptop."

A

Present indefinite tense

B

Present perfect tense

C

Present continuous tense

D

Present perfect continuous tense

Demonstrate correct use of subject-verb agreement

Q 198

Either my father or my brothers _____ going to sell the car.

A

is

B

are

C

were

D

was

Q 199

Will you have _____ apple, _____ pear or _____ orange?

A

an..a...a

B

an..a..an

C

an..a...the

D

the... the.. the

Q 199

Will you have _____ apple, _____ pear or _____ orange?

A

an..a...a

B

an..a..an

C

an..a...the

D

the... the.. the

Demonstrate control of tenses and sentence structure

Q 200

This summer our vacation should be both exciting and restful.

A

complex

B

simple

C

compound

D

compound-complex

Complete the series

Q 201

What is the common vowel in Apple and Banana?

A

E

B

P

C

A

D

M

Verbal Classification

Q 202

Which one does not belong to others?

A

Apple

B

Mango

C

Cucumber

D

Orange

Fact Checking

Q 203

Fact 1: All hats have brims Fact 2: there are black hats and blue hats Fact 3: Baseball caps are hats If the above three statements are facts then which of the following statement will also be a fact I. All caps have brims II. Some baseball caps are blue III. Baseball caps have no brims

A

I only

B

II only

C

III only

D

None of them is a fact

Dependent Causes/ Independent Causes/

Q 204

I. The student was expelled from the school. II. He was found using the drugs.

A

Statement I is the cause and statement II is its effect.

B

Statement II is the cause and statement I is its effect.

C

Both statements I and II are independent causes

D

Both statements I and II are the effects of independent cause.

Verbal Classification

Q 205

The area of a triangle will be when $a = 1\text{m}$, $b = 2\text{m}$, $c = 3\text{m}$, a, b, c being lengths of respective sides.

A

0 sq m

B

3 sq m

C

2 sq m

D

Both A and B

Statements and conclusions

Q 206

Some kings are powerful. All powerful are formidable. Conclusions: I. All kings are powerful. II. All powerful are formidable.

A

Only conclusion II follows

B

Only I conclusion II follows

C

Either I or II follows

D

Neither I nor II follows

Verbal Classification

Q 207

Following is the Largest organ in human body

A

Skin

B

Liver

C

Large intestine

D

Both A and B

Complete the series

Q 209

Discernible and Palpable have _____ number of same letter

A

2

B

3

C

5

D

4

Q 210

A four-person crew from Classic Colors is painting Mr. Zohaib's house. Ahmed is painting the front of the house. Maira is in the alley behind the house painting the back. Ayesha is painting the window frames on the north side, Hamza is on the south. If Zohaib switches places with Ayesha, and Ayesha then switches places with Hamza, where is Hamza?

A

in the alley behind the house

B

on the north side of the house

C

in front of the house

D

on the south side of the house

Q1

If a person is irradiated accidentally by high radiation what immediate effects would be seen?

A

skin burning

B

high blood pressure

C

fever

D

any of these

Q2

The acceleration is a:....

A

vector quantity

B

scalar quantity

C

dimensionless quantity

D

none of these

Q3

Coulomb per second is equivalent to

A

Ampere

B

Farad

C

Henry

D

Watt

Q4

Two waves interfere constructively, if the path difference between them is

A

$$(2n + 1) \lambda$$

B

$$(2n + 1) \lambda/2$$

C

$$(2n + 1) \lambda/3$$

D

None of these

Q5

The property of bending of light around obstacles and spreading of light waves into the geometrical shadow of an obstacle is called:

A

diffraction

B

reflection

C

interference

D

refraction

Q6

The fission reaction is slow reaction

A

TRUE

B

FALSE

C

true when neutrons slows down

D

any of these

Q7

The penetrating power of x rays depends on

A

frequency

B

amplitude

C

wavelength

D

all of these

Q8

The efficiency of the heat engine can be defined as:...

A

$$1 - \frac{Q_2}{Q_1}$$

B

$$1 + \frac{Q_2}{Q_1}$$

C

$$1 - \frac{Q_1}{Q_2}$$

D

$$1 + \frac{Q_1}{Q_2}$$

Q9

If number of loops are increased then according to Faraday law ____ will increase

A

voltage

B

electric field

C

magnetic field

D

all of these

Q10

Electric motor converts _____ to _____ energy

A

electric , mechanical

B

mechanical , electric

C

mechanical , potential

D

not enough information

Q11

Time varying magnetic field creates electric field, this is called

A

electric induction

B

magnetic induction

C

electromagnetic induction

D

dipole induction

Q12

Which reaction is endothermic

A

fission

B

fusion

C

formation of gas

D

none of these

Q13

Under a cyclic path, internal energy after complete cycle is same as

A

2(initial)

B

initial heat

C

initial internal energy

D

initial work

Q14

Blackbody shows a _____ spectra

A

continuous

B

discrete

C

both a) and b)

D

None of these

Q15

Determine the angular displacement in radians of 6.5 revolutions.

A

40.8 radians

B

4 radians

C

3 radians

D

36 radians

Q16

Faraday law states that the rate of change of magnetic flux is equal to

A

electromotive force

B

induced current

C

induced flux

D

induced magnetic field

Q17

The dimensions of angular velocity are

A

$[LT^{-1}]$

B

$[LT]$

C

$[LT^{-2}]$

D

$[T^{-1}]$

Q18

If an object moves with constant speed then its acceleration always is

A

zero

B

nonzero

C

infinite

D

none of these

Q19

Two containers X and Y are filled with an ideal gas. X has 1 mol of gas and Y has 2 mol of gas. Volume of Y is four times that of X. Pressure in Y is half that in X. What is temperature of gas in Y -----
----- temperature of gas in X

A

2

B

1

C

1 — 2

D

1 — 4

Q20

A refrigerator operates for a certain time, and the work done by the electrical energy during this time is $W=1000\text{J}$. What can be said about the heat delivered to the room containing the refrigerator?

A

The heat delivered to the room is less than 1000 J

B

The heat delivered to the room is equal to 1000 J

C

The heat delivered to the room is greater than 1000 J

D

No heat is delivered to the room

Q21

A potentiometer is used to measure the emf of a cell. At null point, no current flows through_____

A

the main circuit

B

the cell circuit

C

both the main and cell circuits

D

the potentiometer wire

Q22

Average dc Voltage across the load in terms of V_{max} is

A

$0.532 V_{max}$

B

$0.637 V_{max}$

C

$0.759 V_{max}$

D

$0.437 V_{max}$

Q23

x-rays images are detected on ____ screen

A

Phosphorous

B

carbon

C

sodium

D

helium

Q24

When a standing wave is set up in a pipe which is open from one end, which of the following statements is true?

A

sum of the number of antinodes and the number of nodes is always even

B

wavelength = length string / number of nodes

C

The shape of the string at any instant shows a symmetry about the midpoint of the string

D

frequency = number of nodes * fundamental frequency

Q25

x-rays used to measure

A

fractures

B

temperature

C

blood pressure

D

all of these

Q26

Most widely used rectifier is

A

half wave rectifier

B

full wave rectifier

C

bridge rectifier

D

none of them

Q27

If a porter is carrying a load and waiting for arrival of train then work done by the porter is

A

positive

B

zero

C

negative

D

none of these

Q28

Acceleration of a moving train when it start its motion is

A

negative

B

zero

C

positive

D

infinite

Q29

Materials that have both metallic and non-metallic characteristics are called

A

Semiconductor

B

Metal

C

Non metal

D

Organic compound

Q30

In Michelson's interferometer, displacement L of mirror and wavelength λ of light are related as:

A

$$L = 2\lambda$$

B

$$L = m / \lambda$$

C

$$L = m \lambda$$

D

$$L = m \lambda / 2$$

Q31

If a car moves with a uniform speed of 2ms^{-1} in a circle of radius 0.4, its angular speed is?

A

4 rads^{-1}

B

5 rads^{-1}

C

1.6 rads^{-1}

D

2.8 rads^{-1}

Q32

1 tesla is equal to

A

100 N/Am

B

1 N/Am

C

0.1 Nm/A

D

1 Nm/A

Q33

The temperature coefficient of resistance is expressed in :

A

$^{\circ}\text{C}$

B

$^{\circ}\text{C}^{-1}$

C

$\text{m}^{\circ}\text{C}^{-1}$

D

None of these

Q34

A point source broadcasts sound into a uniform medium. If the distance from the source is tripled how does the intensity change?

A

It becomes one-ninth as large

B

It becomes one-third as large

C

It becomes three times larger

D

It becomes nine times larger

Q35

A sample of radioactive element has a mass of 10 gm at an instant $t = 0$. The approximate mass of this element in the sample after two mean lives is

A

3.70 gm

B

6.30 gm

C

2.50 gm

D

1.35 gm

Q36

What is the change in kinetic energy of a proton when it is accelerated through a potential difference of 2MV?

A

0.32 μJ

B

0.32 nJ

C

0.32 pJ

D

0.32 fJ

Q37

Consider a peak rectifier fed by a 60-Hz sinusoid having a peak value $V_p = 100$ V. Let the load resistance $R = 10$ k Ω . Calculate the fraction of the cycle during which the diode is conducting

A

1.06 %

B

2.06%

C

3.18 %

D

4.82%

Q38

Resistance of carbon filament lamp _____ as the applied voltage increases.

A

Increases

B

Decreases

C

Remains same

D

None of the above

Q39

Circular motion of a particle while attached to a string centripetal acceleration is provided by

A

Tension in string

B

gravitational force

C

Normal force

D

none of these

Q40

What is the power of a bulb if it is operated at 220V and the current in the circuit is 1.5 Amp

A

330 watt

B

430 watt

C

530 watt

D

500 watt

Q41

Value of current in a short circuit is _____

A

Infinite

B

zero

C

minimum

D

maximum

Q42

A monatomic gas at pressure P and Volume V expands isothermally to volume $2V$ and then adiabatically to volume $16V$. The final pressure is

A

$16P$

B

$64P$

C

$32P$

D

$P/64$

Q43

Electric field generated due to induction is

A

conservative

B

nonconservative

C

depends on internal property

D

not enough information

Q44

The ratio of angular speed of the minute hand of clock to that of its hour hand is :

A

3600:1

B

60:1

C

24:1

D

12:1

Q45

The number of neutrons emerged out in a single nucleus during fission reaction are

A

infinite

B

zero

C

3

D

none of these

Q46

Time constant is defined as the time required by the capacitor:....

A

to deposit 63% of the equilibrium charge

B

to deposit 36% of the equilibrium charge

C

to deposit 63 times of the equilibrium charge

D

to deposit 36 times of the equilibrium charge

Q47

P-V diagram of a diatomic gas is a straight line passing through origin. What is the molar heat capacity of the gas in the process?

A

R

B

1.5R

C

3R

D

$\frac{4R}{3}$

Q48

A block of mass 10 kg is moving in x-direction with a constant speed of 10 m/s. it is subjected to a retarding force $F = -0.1x \text{ J/m}$ during its travel from $x = 20 \text{ m}$ to $x = 30 \text{ m}$. its final kinetic energy will be:

A

475J

B

450J

C

275J

D

250J

Q49

A material is made with two different shapes, which surface will absorb more heat in less time

A

rectangular shape of larger area

B

circular shape of smaller area

C

both will absorb same heat

D

heat absorption is independent of shape of material

Q50

The half life of U-238 against alpha decay is 4.5×10^9 years. Find the activity of 1 kg of U-238?

A

2.4×10^{-4} Ci

B

3.34×10^{-4} Ci

C

4.34×10^{-4} Ci

D

2.4×10^{-5} Ci

Q51

Half wave voltage multiplier can provide any degree of voltage multiplication by cascading diodes and capacitors.

A

any doubler

B

any tripler

C

any multiplication

D

none of them

Q52

Rate of reaction can be calculated by calculating

A

Change in temperature

B

Change in pressure

C

Change in volume

D

Change in concentration

Q53

After digestion proteins change into:

A

Amino acids

B

Starch

C

Glycogen

D

Lipids

Q54

The mass of one mole of electron is

A

1.8mg

B

0.184mg

C

0.55 mg

D

0.64 mg

Q55

Organic compounds are_____?

A

Inorganic

B

Polar

C

Ionic

D

Non-Polar

Q56

The Oxidation state of Alkali metals is?

A

1

B

2

C

3

D

0

Q57

Each half reaction in ion electron method is balanced by adding

A

Electrons on left hand side

B

Electron on right hand side

C

Both left or right hand side

D

None of these

Q58

How many resonance structures of benzene are possible?

A

2

B

3

C

6

D

4

Q59

The unit_ is commonly used by meteorologist

A

Bar

B

centibar

C

millibar

D

kilobar

Q60

Atoms in solids are

A

Loosely Packed

B

In random motion

C

Excited

D

Closely packed

Q61

Pure metal

A

Corrode slowly

B

Does not corrode easily

C

Corrode rapidly

D

None of these

Q62

During catalytic reduction of carbonyl compounds, hydrogen adds across?

A

$C=C$

B

$C-H$

C

$C=O$

D

All of these

Q63

The presence of several fine lines in line spectrum shows the presence of

A

shells

B

energy levels

C

sub shells

D

all of these

Q64

Δn is the difference in number of moles of reactants and products in a reaction which is

A

Solid Phase

B

Liquid phase

C

Gaseous Phase

D

Plasma Phase

Q65

Ortho directing groups _____ on benzene ring?

A

Increases electron density

B

Decrease electron density on benzene

C

Make benzene less reactive

D

None of these

Q66

In a cubic close packed system, the number of octahedral void per atom is/are

A

1

B

3

C

8

D

5

Q67

Heat of solution for NaCl is

A

High

B

low

C

Zero

D

One

Q68

The amount of heat required to form vapors of one mole of a liquid at its boiling point is called as?

A

Molar heat of fusion

B

Molar heat of vapourization

C

Molar heat of sublimation

D

Molar heat of Evaporation

Q69

Non polar covalent bond is formed b/w

A

homonuclear diatomic molecules

B

heteronuclear diatomic molecules

C

similar atoms

D

dissimilar atoms

Q70

BeO is___ in nature

A

Acidic

B

Basic

C

Amphoteric

D

Neutral

Q71

Oxidation Number can be

A

Positive

B

zero

C

Negative

D

All of these

Q72

Calculations regarding ionic character tells us that there is no bond when ionic character is

A

72%

B

1 %

C

92%

D

9 %

Q73

Which one of the following is called as marsh gas?

A

Methane

B

Ethane

C

Propane

D

Butane

Q74

Molecular Solids are held together by weak intermolecular forces called

A

Van der Waal forces

B

Dipole Dipole Interaction

C

Both A and B

D

Electrostatic Forces

Q75

Rate of reaction has

A

No units

B

unit of Moles/dm³

C

Unit as Moles / litre

D

Unit as Moles/dm³s⁻¹

Q76

Which of the following catalyst is used in Friedel craft reaction?

A

ZnCl_2

B

KMnO_4

C

AlCl_3

D

V_2O_5

Q77

In case of $\text{HOCH}_2\text{CH}_2\text{CH}_2\text{COOH}$, from where numbering is started?

A

OH group is given number 1

B

Carboxylic acid is given Number 1 position

C

COOH is given number 3 position

D

COOH is given number 4 position

Q78

For Boyle's law verification, If a graph is plotted between $1/V$ on x-axis and P on y-axis, _____ graph will be obtained

A

curved

B

straight line

C

zigzag

D

none of these

Q79

Which of the following oxide is formed by alkali metals?

A

Basic oxides

B

Acidic Oxides

C

Amphoteric oxides

D

Both b and c

Q80

In non-polar molecules ,the strength of London forces depends on number of

A

moles

B

molecules

C

atoms

D

all of these

Q81

Which of the following process is used to improve the quality of Gasoline?

A

Steam cracking

B

Reforming

C

Catalytic cracking

D

Distillation

Q82

When an electrophilic reagent attack on alcohol

A

O - H bond formed

B

O - H bond breaks

C

C - O bond breaks

D

rise in boiling point

Q83

Carboxylic acids turn ?

A

Red litmus blue

B

Blue litmus red

C

Neutral to litmus

D

No effect

Q84

How phenol is produced from the Chlorobenzene ?

A

Using Kolb's method

B

Using Dow's method

C

Using Zn dust

D

All of these

Q85

How many classes of enzymes are there according to International union of Biochemistry ?

A

Four

B

Six

C

Five

D

Two

Q86

Sulphur-16 gets its stabilization by gaining 2 electron to become equal to

A

neon

B

argon

C

helium

D

krypton

Q87

Coal tar contains many organic compounds that can be separated by_____?

A

Destructive distillation

B

Fractional distillation

C

Vacuum distillation

D

Partial distillation

Q88

In pig iron the concentration of C-atom is

A

.12 — .25%

B

2.5 — 4.5%

C

2. — 4. %

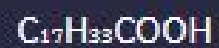
D

.25 — 2.5%

Q89

Which one of the following is the formula of stearic acid?

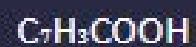
A



B



C



D



Q90

Why aldehydes are more reactive than ketones?

A

Electronic reasons

B

Steric hindrance

C

Both a and b

D

None of these

Q92

ΔH and ΔE have same values for the reaction in_____?

A

Solid phase

B

Gases phase

C

Liquids, solids and solution

D

None of these

Q93

Which of the following is not a mixture of hydrocarbons

A

candle wax

B

kerosine oil

C

paraffin oil

D

vegetable ghee

Q94

According to _____ theory, atoms were the ultimate particles that cannot be divided further.

A

Bohr's

B

Rutherford's

C

Dalton's

D

cannizzaro's

Q95

The total number of bond angles in methane are

A

2

B

3

C

5

D

4

Q96

In case of oxidation of symmetrical ketone, which of the following products are formed ?

A

One Carboxylic acid

B

Mixture of different carboxylic acids

C

Same type of carboxylic acids

D

None of these

Q97

Flavour of Orange is due to the presence of _____ ester?

A

Benzyl acetate

B

Octyl Acetate

C

Amyl Butyrate

D

Ethyl butyrate

Q98

Tertiary alcohols can change into alkenes by

A

combustion reaction

B

oxidation

C

elimination reaction

D

addition reaction

Q99

Grignard reagent is produced by the reaction of Alkyl halides with _____?

A

Ca in anhydrous ether

B

Mg in dry ether

C

Mg in hydrous ether

D

Ca in dry ether

Q100

Which of the following shows H-bonding?

A



B



C



D

All of these

Q101

Reactions in which simple substances are combined to form complex substances are called?

A

Metabolic reactions

B

Catabolic reactions

C

Anabolic reactions

D

none of these

Q102

How many laminae present in the spinal cord's grey matter?

A

10

B

8

C

12

D

9

Q103

The end or complete stop of the menstrual cycle is called:

A

Ovulation

B

menstruation

C

Fertilization

D

menopause

Q104

Mating between relatives is called which of the following?

A

ex breeding

B

breeding

C

inbreeding

D

outbreeding

Q105

In uncompetitive inhibition, the inhibitor binds with

A

enzyme

B

substrate

C

ES-complex

D

all of these

Q106

The non substrate molecules that binds to the allosteric sites are called?

A

inhibitors

B

reactants

C

allosteric substrates

D

allosteric modulators

Q107

The Light reaction takes place in?

A

Chloroplast

B

Grana

C

Thylakoid

D

Stroma

Q108

The dense fluid filled region in the chloroplast is?

A

Grana

B

stroma

C

Thylakoid

D

Intergrana

Q109

Cellulose is the major component of?

A

primary wall

B

secondary wall

C

middle lamella

D

all of these

Q110

What is a Provirus?

A

a. free virus

B

free DNA

C

primitive virus

D

integrated viral genome

Q111

Reflex action is the simplest form of response in:

A

higher animals

B

smaller animals

C

simpler animals

D

Lowest animals

Q112

The uterus of the female reproductive system opens into the?

A

placenta

B

birth canal

C

cervix

D

all of these

Q113

Which of the following structure primarily helps in attachment of bacteria on various surfaces?

A

pili

B

flagella

C

both a and b

D

none of these

Q114

Euplectella belongs to phylum _____.

A

Porifera

B

Ctenophora

C

Echinodermata

D

None of the above.

Q115

In seminiferous tubules repeated division of the germinal epithelium produce?

A

oogonia

B

spermatogonia

C

ovogonia

D

oogonia

Q117

Joints are classified on the basis of:

A

the amount of movement allowed by them

B

nature of structure they have

C

type of bones they join

D

Both B and C

Q118

The total kinetic energy of water molecules is known as:

A

Water potential

B

Osmotic potential

C

Pressure potential

D

None of these

Q119

Assume that a trait is expressed according to the mechanism of complete dominance. Each gene contributes one of two possible alleles. Which of the following statements is true?

A

The genotype is the expressed trait of the individual

B

There are three possible phenotypes the organism can express

C

If two heterozygous organisms mate, 25% of the progeny will be homozygous

D

If two heterozygous organisms mate, 75% of the progeny will display the dominant phenotype

Q120

An egg is fertilized in laboratory and implanted in uterus for development. This is called:

A

test tube baby

B

Cloning

C

In vivo fertilization

D

Both A and B

Q121

The idea of inheritance of acquired characteristics was given by

A

Lamarck

B

Darwin

C

Aristotle

D

Lyell

Q122

Which statement is incorrect about Lock and Key Model?

A

Specific enzyme can transform only a specific substrate

B

Active site of an enzyme is a non flexible structure

C

Active site does not change before during or even after the reaction

D

It explains the mechanism of every chemical reaction

Q123

Which group of animals is not a deuterostome?

A

Echinodermata

B

Arthropoda

C

Mollusca

D

Both B and C

Q124

How many ml of oxygen are present in a litre of water?

A

10

B

20

C

40

D

200

Q125

Which one of the following does not occur at puberty in girls?

A

voice deepens

B

pubic hair grow

C

hips broaden

D

menstrual cycle starts

Q126

_____ is formed by two pairs of light chains, and one pair of heavy chains.

A

actin

B

myosin

C

myofibril

D

Fibroin

Q127

The specificity of an enzyme is due to which of the following?

A

protein nature

B

active site

C

globular shape

D

cofactor

Q128

In the air passageway, the incoming air passes from the pharynx to

A

bronchi

B

bronchioles

C

Windpipe

D

larynx

Q129

Nematoda is a taxon of the ranking:

A

Kingdom

B

Sub-kingdom

C

Phylum

D

Class

Q130

The function of tropomyosin is to prevent actin and myosin from --- when the muscle is at rest.

A

interacting

B

separation

C

Both A and B

D

None of these

Q131

Enzymes which control cellular respiration are present in?

A

mitochondria

B

nucleus

C

ribosomes

D

chloroplast

Q132

Which of the following use book lungs to breathe?

A

earthworm

B

scorpions

C

fish

D

all of these

Q133

Cell turgidity is caused by:

A

Endosmosis

B

Exosmosis

C

Plasmolysis

D

Active transport

Q134

Lysosomes are known as “suicidal bags” because of?

A

parasitic activity

B

presence of food vacuoles

C

hydrolytic activity

D

catalytic activity

Q135

The trioses which are intermediate in respiration and photosynthesis are?

A

Glyceraldehydes

B

Dihydroxyacetone

C

both a and b

D

none of these

Q136

Sperms are produced in:

A

Urethra

B

Pancreas

C

sperm duct

D

testis

Q137

The breaking of terminal phosphate of ATP yields?

A

7 Kcal

B

8 Kcal

C

7,5 Kcal

D

7.3 Kcal

Q138

The stage of photosynthesis that actually produces sugar is____

A

the calvin cycle

B

photosystem I

C

photosystem II

D

the light reaction

Q139

The medulla oblongata is found on which of the following regions?

A

top of brain

B

behind the thalamus

C

behind the hypothalamus

D

top of spinal cord

Q140

A 25 years old female with chronic fatigue was diagnosed with iron deficiency anemia and low blood count what is the cause of her fatigue?

A

reduction in amount of Fe-S centers

B

lowered production of water from the electron transport chain that cause dehydration

C

iron is important for electron transport chain

D

iron is important for NADH production

Q141

Which of the following is not vestigial organ of man?

A

appendix

B

coccyx

C

both a and b

D

none of these

Q142

Out of 31 pairs of spinal nerves, how many pairs of sacral nerves are there?

A

5

B

10

C

12

D

15

Q143

In an aqueous environment the most stable tertiary conformation is that in which type of amino acids are buried inside the conformation?

A

hydrophilic

B

hydrophobic

C

basic

D

acidic

Q144

Which of the following is true of both bacterial conjugation and meiosis?

A

Both processes produce four haploid cells

B

Both processes are a form of asexual reproduction

C

Both processes involve genetic recombination

D

none of these

Q145

Which of the following would not help determine whether a cell was eukaryotic or prokaryotic?

A

DS DNA

B

SS DNA

C

RED

D

membrane bound organelles

Q145

Which of the following would not help determine whether a cell was eukaryotic or prokaryotic?

A

DS DNA

B

SS DNA

C

RED

D

membrane bound organelles

Q146

The sponges in which sperms develop first are included in the category of?

A

Peritandrous

B

Protandrous

C

Protandrous

D

Protandrous

Q147

Binomial nomenclature was introduced by

A

Artistotle

B

Linnaeus

C

Mendel

D

Darwin

Q148

Embryo of a turtle, mouse and human show

A

comparative embryology

B

distinct differences

C

vestigial organs

D

analogous structure

Q149

Some auditory reflexes and posture are controlled by which region of the brain?

A

forebrain

B

spinal cord

C

hindbrain

D

midbrain

Q150

What is the name of the region where double-stranded single circular DNA is found in the prokaryotic cell?

A

Proton Nucleus

B

Nucleus

C

Nucleoplasm

D

Nucleoid

Q151

All of the following statements are true regarding the attachment or adsorption of the virion to the host cell EXCEPT that:

A

for naked virions, the surface capsid proteins are responsible for binding to a specific cell receptor.

B

for enveloped viruses, the spikes are responsible for binding to a specific cell receptor.

C

cell lacking a receptor for a specific virus is not infected by that virus.

D

All of the above

Q152

Which of the following statement about the head of a chlorophyll molecule is incorrect?

A

It is a porphyrin ring or tetrapyrrole ring structure

B

It is flat, square and light absorbing

C

Composed of carbon and nitrogen atoms with Magnesium as central metal ion, which is coordinated with nitrogen.

D

It is hydrophobic

Q153

What would you predict would happen to pancreatic enzymes if they were introduced to the stomach?

A

Their function would decrease due to increased pH

B

Their function would decrease due to decreased pH

C

Their function would increase due to decreased proton concentration

D

Their function would increase due to decreased pH

Q154

The optimum pH for the functioning of the enzyme pepsin is?

A

2

B

3

C

4

D

5

Q155

One similarity between annelids and arthropods:

A

Closed circulatory system.

B

Nitrogenous waste product is uric acid.

C

Ventral nerve cord.

D

None of the above.

Q156

If one of an organism's gametes contains 16 chromosomes, how many chromosomes will one of its somatic cells contain?

A

8

B

18

C

16

D

32

Q157

Which of these does not contain cartilage?

A

Bronchioles

B

Larynx

C

Trachea

D

Bronchi

Q158

Where does germ cells are produced?

A

uterus

B

ovaries

C

eggs

D

fallopian tube

Q159

The cell membrane of a skeletal muscle cell is called:

A

Sarcoplasm

B

sarcolemma

C

sarcomere

D

myofibrils

Q160

Which one is not the characteristic of Kingdom Animalia?

A

All animals are ingestive heterotrophs

B

All animals are eukaryotes

C

It is the largest kingdom.

D

All animals develop from the dissimilar gametes i.e. large sperm and the small egg

Q161

Which of the following cell structure contains the highest concentration of RNA?

A

centriole

B

nucleus

C

nucleolus

D

mitochondria

Q162

The brain part that carries sensory information to the limbic system and cerebrum is

A

Medulla

B

Thalamus

C

hypothalamus

D

Corpus callosum

Q163

Which of the modes of cellular transport requires energy?

A

active transport

B

osmosis

C

passive transport

D

diffusion

Q164

The ventral root of the spinal cord contains axons of

A

Sensory neuron

B

Motor neuron

C

Mixed neuron

D

Spinal neuron

Q165

The nodules of lymphoid tissue found in the wall of the intestinal tract are termed as:

A

Grave's region

B

Hashimoto's nodes

C

Peyer's patches

D

DiGeorge's nodes

Q166

Choose the correct sentence.

A

Belgium and france fought over who would host the olympic games?

B

Belgium and France fought over who would host the Olympic Games.

C

Belgium and France: fought over who would host the Olympic Games!

D

Belgium and France fought over who would host the olympic games.

Q167

Choose the correct spelling of the word

A

arround

B

arond

C

arund

D

around

Q168

Thank you. You've been very _____ through this time.

A

ideal

B

cruel

C

kind

D

glad

Q169

We _____ to school every day

A

goes

B

go

C

went

D

gone

Q170

unburdened

A

hindered

B

extort

C

free

D

encumbered

Q171

There was _____ article about pollution in _____ paper.

A

a..an

B

an... the

C

a... the

D

a...a

Q172

The excuse he gave was extremely _____.

A

delicate

B

flimsy

C

slight

D

thin

Q173

Neither the professor nor his assistants _____ able to solve the mystery of the eerie glow in the laboratory.

A

is

B

was

C

were

D

be

Q174

The truthful ____ always trustworthy.

A

is

B

was

C

are

D

may

Q175

Choose the correct sentence.

A

Qamar is going to college in September, he plans to study Sociology.

B

Qamar is going to college in september, he plans to study sociology.

C

Qamar is going to college in September he plans to study Sociology.

D

Qamar is going to college in september he plans to study Sociology?

Q176

What is the tense of this question? What are the shops like around here?

A

Present

B

past

C

future

D

none of these

Q177

Which tense would you use for talking about your childhood?

A

Present

B

past

C

future

D

none of these

Q178

Now the time was (A)/ to escape (B)/ and he opened the window (C)/ and jumped out. (D)

A

Now the time was

B

to escape

C

and he opened the window

D

and jumped out

Q179

_____ people know the town better than old Jake here.

A

Only few

B

The few

C

Only the few

D

Few

Q180

Fetch me a glass of water.

A

Declarative

B

Imperative

C

Interrogative

D

Exclamatory

Q181

waft

A

wave

B

drift

C

stump

D

keep

Q182

Identify the tense used in the given sentence. "You are always working on your laptop."

A

Present indefinite tense

B

Present perfect tense

C

Present continuous tense

D

Present perfect continuous tense

Q183

Either my father or my brothers _____ going to sell the car.

A

is

B

are

C

were

D

was

Q184

Will you have _____ apple, _____ pear or _____ orange?

A

an..a...a

B

an..a..an

C

an..a...the

D

the... the.. the

Q185

This summer our vacation should be both exciting and restful.

A

complex

B

simple

C

compound

D

compound-complex

Q186

What is the common vowel in Apple and Banana?

A

E

B

P

C

A

D

M

Q187

Which one does not belong to others?

A

Apple

B

Mango

C

Cucumber

D

Orange

Q188

Fact 1: All hats have brims Fact 2: there are black hats and blue hats Fact 3: Baseball caps are hats If the above three statements are facts then which of the following statement will also be a fact I. All caps have brims II. Some baseball caps are blue III. Baseball caps have no brims

A

I only

B

II only

C

III only

D

None of them is a fact

Q189

I. The student was expelled from the school. II. He was found using the drugs.

A

Statement I is the cause and statement II is its effect.

B

Statement II is the cause and statement I is its effect.

C

Both statements I and II are independent causes

D

Both statements I and II are the effects of independent cause.

Q190

The area of a triangle will be when $a = 1\text{m}$, $b = 2\text{m}$, $c = 3\text{m}$, a, b, c being lengths of respective sides.

A

0 sq m

B

3 sq m

C

2 sq m

D

Both A and B

Q191

Some kings are powerful. All powerful are formidable. Conclusions: I. All kings are powerful. II. All powerful are formidable.

A

Only conclusion II follows

B

Only I conclusion II follows

C

Either I or II follows

D

Neither I nor II follows

Q192

Following is the Largest organ in human body

A

Skin

B

Liver

C

Large intestine

D

Both A and B

Q193

Statement The availability of imported fruits has increased in the indigenous market and so the demand for indigenous fruits has been decreased. I. To help the indigenous producers of fruits, the Government should impose high import duty on these fruits, even if these are not of good quality. II. The fruit vendors should stop selling imported fruits. So that the demand for indigenous fruits would be increased.

A

Both of them follows

B

None of them follows

C

Only I follows

D

Only II follows

Q194

Discernible and Palpable have _____ number of same letter

A

2

B

3

C

5

D

4

Q195

A four-person crew from Classic Colors is painting Mr. Zohaib's house. Ahmed is painting the front of the house. Maira is in the alley behind the house painting the back. Ayesha is painting the window frames on the north side, Hamza is on the south. If Zohaib switches places with Ayesha, and Ayesha then switches places with Hamza, where is Hamza?

A in the alley behind the house

B on the north side of the house

C in front of the house

D on the south side of the house

Q196

The SI Unit for resistance is?

A

Ohm

B

Ampere

C

Watt

D

Volts

Q197

When $\text{CH}_3\text{CH}_2\text{MgBr}$ reacts with CO_2 which of the following product is formed?

A



B



C



D



Q198

In which phase $\text{S}_{\text{N}}2$ reactions are favored?

A

Solid

B

Liquid

C

Gas

D

All of these

Q199

Magnetic Force between two wires is inversely proportional to

A

distance

B

current on them

C

Charge on them

D

none of these

Q200

The reaction in which a molecule is removed from a compound but no addition takes place is called as _____?

A

Substitution reaction

B

Elimination reaction

C

Addition reaction

D

Replacement reaction

Q201

A stationary wave is setup on a string which is fixed at both ends. The frequency of the wave is 400 Hz. If the speed of wave is 480 m/s, then what is the length of the string?

A

1.2 m

B

0.84 m

C

0.60 m

D

0.42 m

Q202

In annihilation process..... are produced :

A

Positron

B

Photons

C

Electrons

D

B & C are correct

Q203

Magnetic field lines have a property that lines are _____

A

non intersecting

B

intersect near south pole

C

intersect near north pole

D

intersect every where

Q204

Alcohol is dehydrated by the following reaction

A

elimination reaction

B

oxidation reaction

C

combustion

D

decomposition

Q205

If number of molecules of different gases are same at S.T.P ,the occupied volume will be

A

greater

B

same

C

smaller

D

twice

Q206

Percentage of free space in a body centered cubic unit cell is

A

.32

B

.34

C

.28

D

.3

Q207

The critical volume of O_2 is ____ cm^3/mol

A

$95.56g/dm^3$

B

$64.51g/dm^3$

C

$74.42g/dm^3$

D

$99.9g/dm^3$

Q208

The function of lymph node is to filter ----

A

Blood

B

Lymph

C

Semen

D

Amniotic fluid

Q209

Which of these cells is not present in phloem?

A

companion cell

B

sieve tube members

C

vessels

D

parenchyma

Q210

Which of the following is heterozygote?

A

RR

B

rr

C

Both a & b

D

None of them